




SIMATIC S7-300, Digital output SM 322, isolated, 8 DO, 48-125 V DC, 1.5A, 1x 20-pole

| Supply voltage | |
|--|---|
| Load voltage L+ | |
| <ul style="list-style-type: none"> Rated value (DC) | 48 V; 48 V DC to 125 V DC |
| <ul style="list-style-type: none"> permissible range, lower limit (DC) | 40 V |
| <ul style="list-style-type: none"> permissible range, upper limit (DC) | 140 V |
| <ul style="list-style-type: none"> Reverse polarity protection | Yes; through fuse |
| Input current | |
| from load voltage L+ (without load), max. | 2 mA |
| from backplane bus 5 V DC, max. | 100 mA |
| Power loss | |
| Power loss, typ. | 7.2 W |
| Digital outputs | |
| Number of digital outputs | 8 |
| Short-circuit protection | Yes; Electronic |
| <ul style="list-style-type: none"> Response threshold, typ. | 4.4 A |
| Limitation of inductive shutdown voltage to | M (-1 V) |
| Controlling a digital input | Yes |
| Spare fuses | 6.3 A / 250 V, quick-response, 5x 20 mm |
| Switching capacity of the outputs | |
| <ul style="list-style-type: none"> on lamp load, max. | 15 W; 15 W (48 V) or 40 W (125 V) |
| Output voltage | |
| <ul style="list-style-type: none"> for signal "1", min. | L+ (-1.2 V) |
| Output current | |
| <ul style="list-style-type: none"> for signal "1" rated value | 1.5 A |
| <ul style="list-style-type: none"> for signal "1" permissible range for 0 to 40 °C, min. | 10 mA |
| <ul style="list-style-type: none"> for signal "1" permissible range for 0 to 40 °C, max. | 1.5 A |
| <ul style="list-style-type: none"> for signal "1" permissible range for 40 to 60 °C, min. | 10 mA |
| <ul style="list-style-type: none"> for signal "1" permissible range for 40 to 60 °C, max. | 1.5 A |
| <ul style="list-style-type: none"> for signal "1" minimum load current | 10 mA |
| <ul style="list-style-type: none"> for signal "1" permissible surge current, max. | 3 A; for 10 ms |
| <ul style="list-style-type: none"> for signal "0" residual current, max. | 0.5 mA |
| Output delay with resistive load | |
| <ul style="list-style-type: none"> "0" to "1", max. | 2 ms |
| <ul style="list-style-type: none"> "1" to "0", max. | 15 ms |
| Parallel switching of two outputs | |
| <ul style="list-style-type: none"> for uprating | No |
| <ul style="list-style-type: none"> for redundant control of a load | Yes; only outputs of the same group |
| Switching frequency | |

| | |
|---|---|
| <ul style="list-style-type: none"> • with resistive load, max. | 25 Hz |
| <ul style="list-style-type: none"> • with inductive load, max. | 0.5 Hz |
| <ul style="list-style-type: none"> • with inductive load (acc. to IEC 60947-5-1, DC13), max. | 0.5 Hz |
| <ul style="list-style-type: none"> • on lamp load, max. | 10 Hz |
| Total current of the outputs (per group) | |
| horizontal installation | |
| — up to 40 °C, max. | 6 A |
| — up to 50 °C, max. | 4 A |
| — up to 60 °C, max. | 3 A |
| vertical installation | |
| — up to 40 °C, max. | 4 A |
| Cable length | |
| <ul style="list-style-type: none"> • shielded, max. | 1 000 m |
| <ul style="list-style-type: none"> • unshielded, max. | 600 m |
| Interrupts/diagnostics/status information | |
| Alarms | No |
| Diagnostics function | No |
| Alarms | |
| <ul style="list-style-type: none"> • Diagnostic alarm | No |
| Diagnoses | |
| <ul style="list-style-type: none"> • Wire-break | No |
| <ul style="list-style-type: none"> • Short-circuit | No |
| <ul style="list-style-type: none"> • Fuse blown | No |
| <ul style="list-style-type: none"> • missing load voltage | No |
| Diagnostics indication LED | |
| <ul style="list-style-type: none"> • Rated load voltage PWR (green) | No |
| <ul style="list-style-type: none"> • Fuse OK FSG (green) | No |
| <ul style="list-style-type: none"> • Group error SF (red) | Yes |
| <ul style="list-style-type: none"> • Status indicator digital output (green) | Yes |
| Potential separation | |
| Potential separation digital outputs | |
| <ul style="list-style-type: none"> • between the channels | Yes |
| <ul style="list-style-type: none"> • between the channels, in groups of | 4 |
| <ul style="list-style-type: none"> • between the channels and backplane bus | Yes; Optocoupler |
| Isolation | |
| Isolation tested with | 1 500 V AC |
| connection method / header | |
| required front connector | 20-pin |
| Dimensions | |
| Width | 40 mm |
| Height | 125 mm |
| Depth | 120 mm |
| Weights | |
| Weight, approx. | 250 g |
| last modified: | 1/16/2021  |